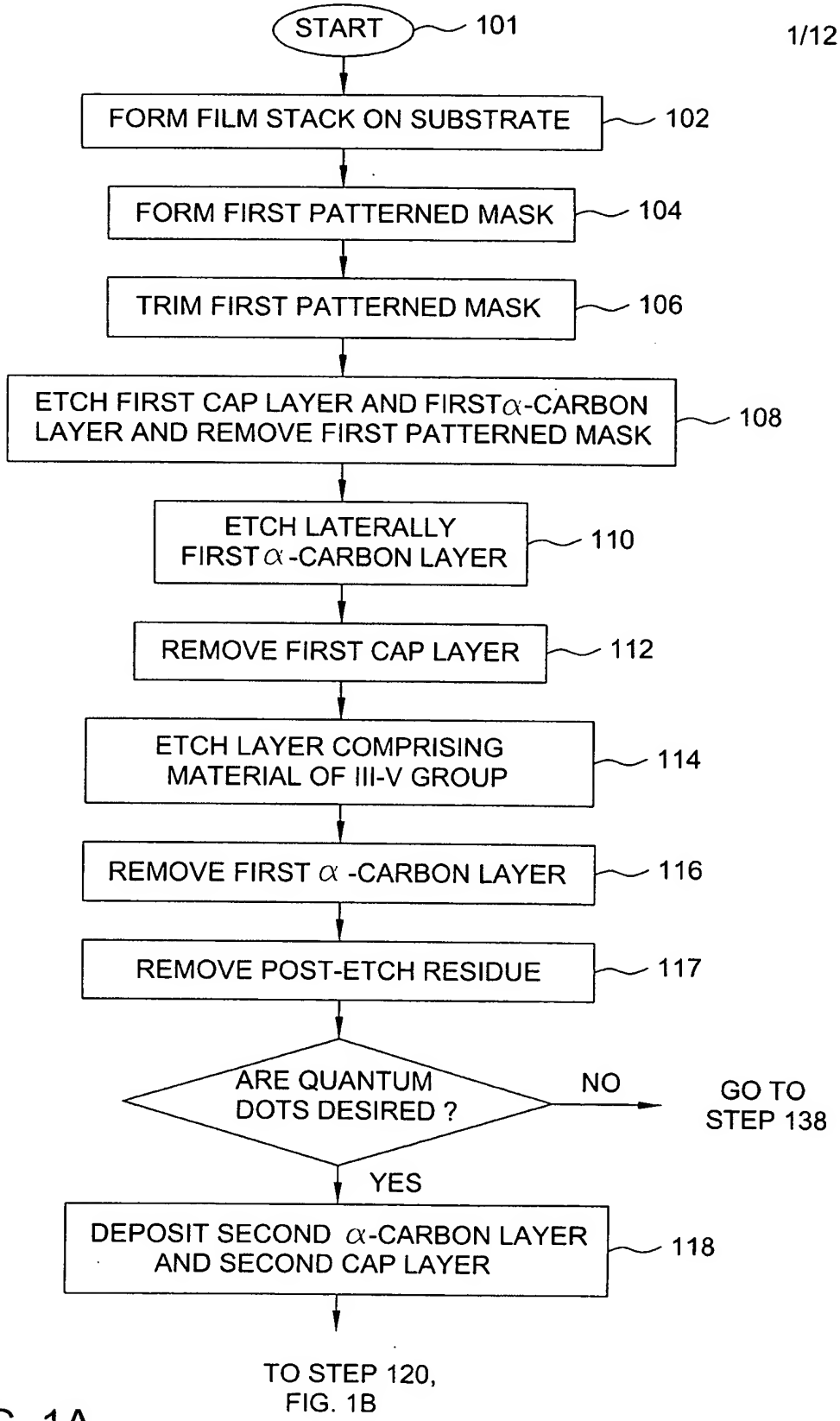
START
101
FORM FILM STACK ON SUBSTRATE
102
FORM FIRST PATTERNED MASK
104
TRIM FIRST PATTERNED MASK
106
ETCH FIRST CAP LAYER AND FIRST α-CARBON LAYER AND REMOVE FIRST PATTERNED MASK
108
ETCH LATERALLY FIRST α-CARBON LAYER
110
REMOVE FIRST CAP LAYER
112
ETCH LAYER COMPRISING MATERIAL OF III-V GROUP
114
REMOVE FIRST α -CARBON LAYER
116
REMOVE POST-ETCH RESIDUE
117
ARE QUANTUM DOTS DESIRED ?
NO
GO TO STEP 138
YES
DEPOSIT SECOND α-CARBON LAYER AND SECOND CAP LAYER
118
TO STEP 120, FIG. 1B

FIG. 1A

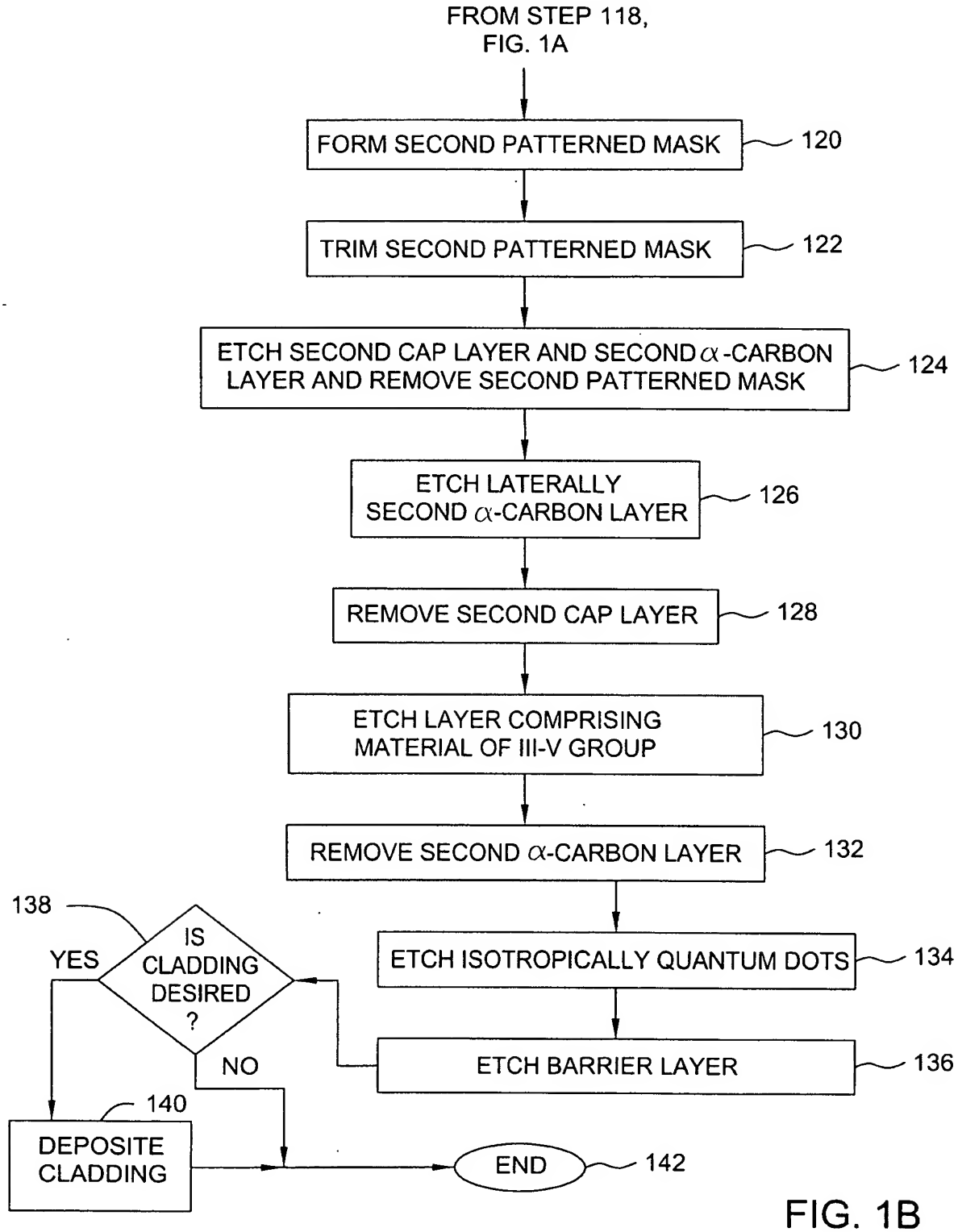
FROM STEP 118, FIG. 1A
FORM SECOND PATTERNED MASK
120
TRIM SECOND PATTERNED MASK
122
ETCH SECOND CAP LAYER AND SECOND α-CARBON LAYER AND REMOVE SECOND PATTERNED MASK
124
ETCH LATERALLY SECOND α-CARBON LAYER
126
REMOVE SECOND CAP LAYER
128
ETCH LAYER COMPRISING MATERIAL OF III-V GROUP
130
REMOVE SECOND α-CARBON LAYER
132
ETCH ISOTROPICALLY QUANTUM DOTS
134
ETCH BARRIER LAYER
136
138
IS CLADDING DESIRED ?
YES
NO
140
DEPOSITE CLADDING
END
142

FIG. 1B

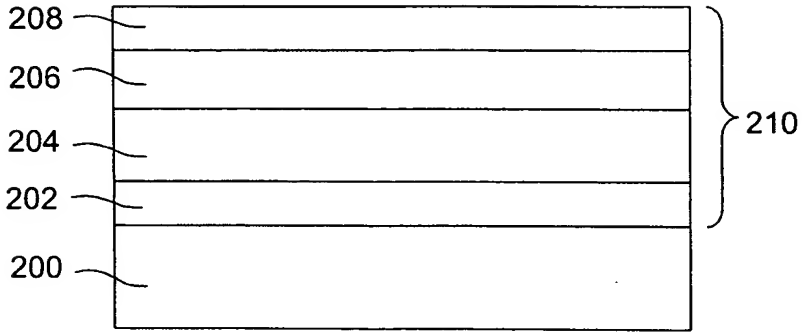

FIG. 2A

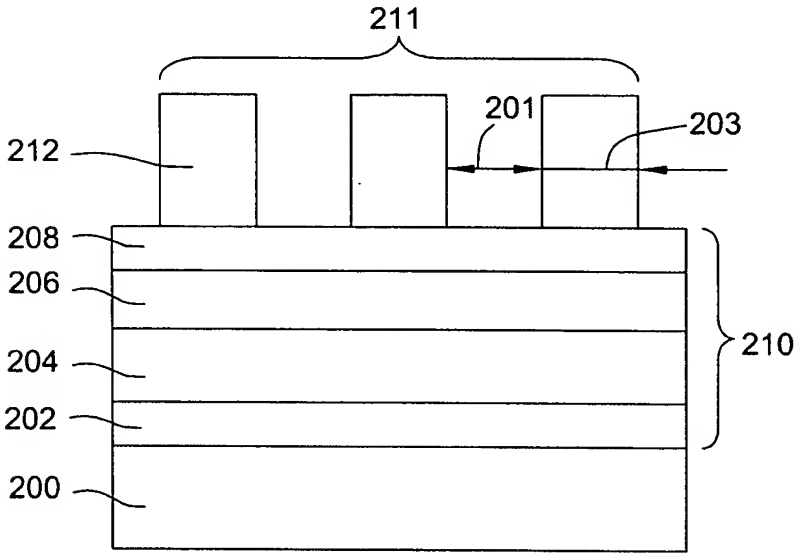

FIG. 2B

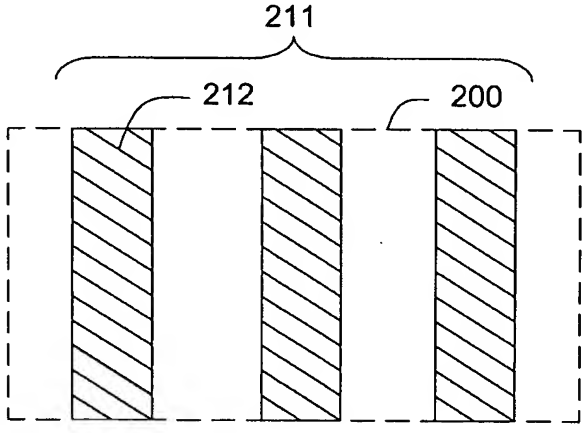

FIG. 2C

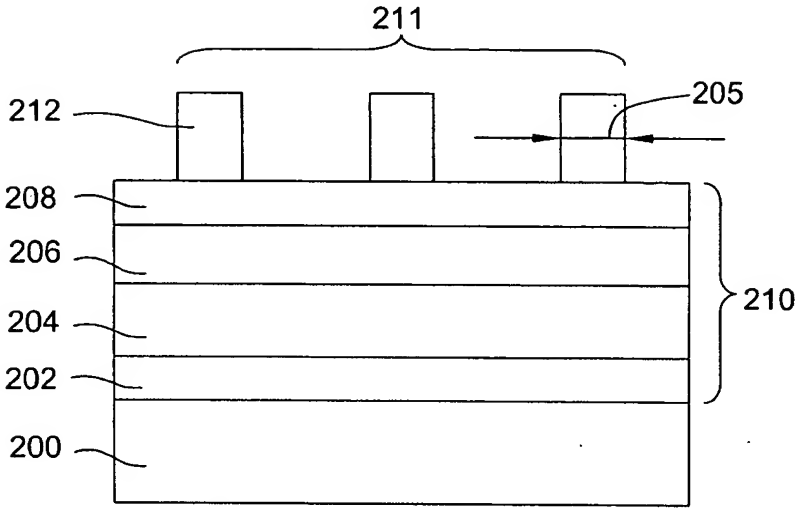

FIG. 2D

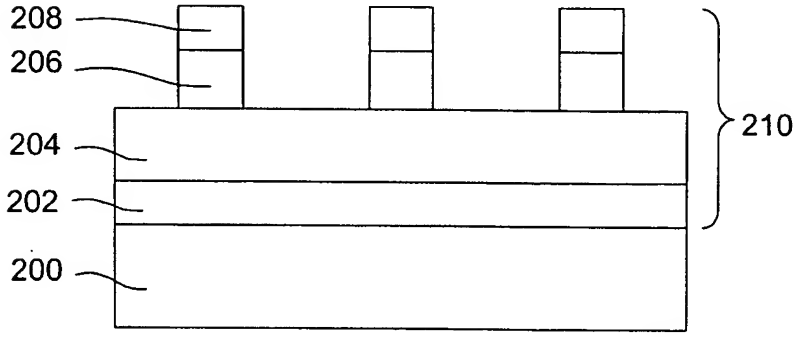

FIG. 2E

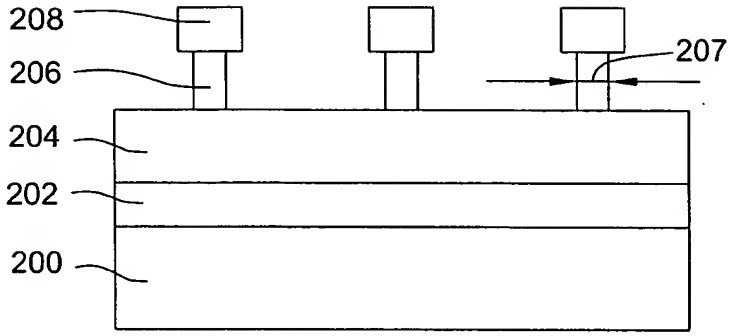

FIG. 2F

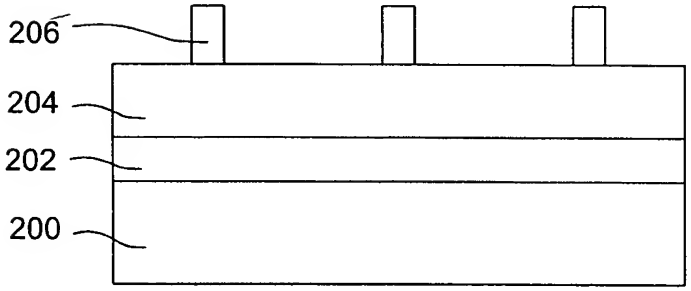

FIG. 2G

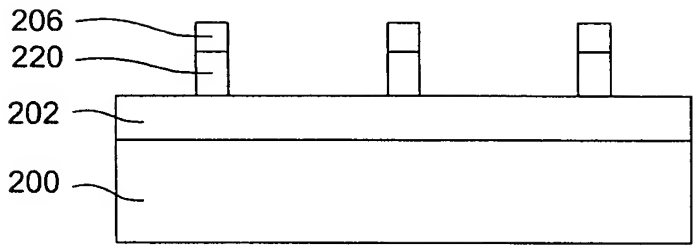

FIG. 2H

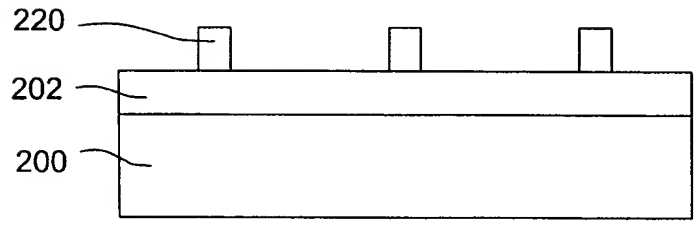

FIG. 2I

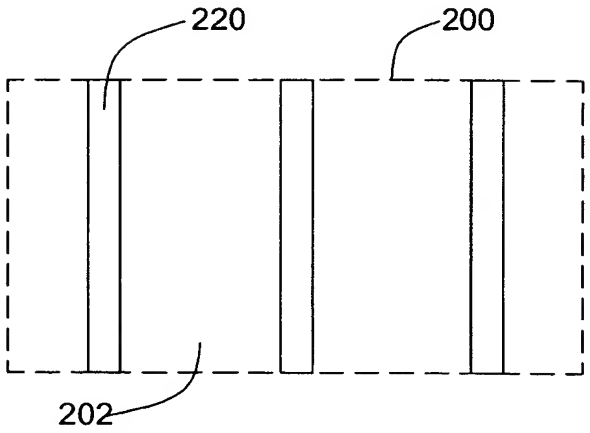

FIG. 2J

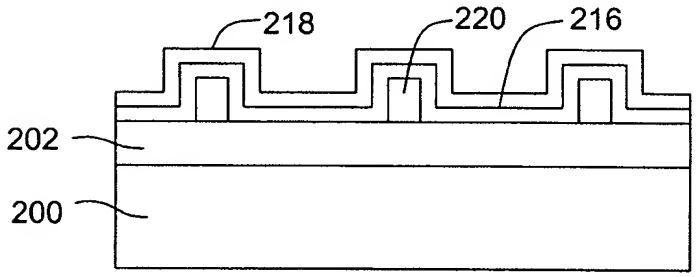

FIG. 2K

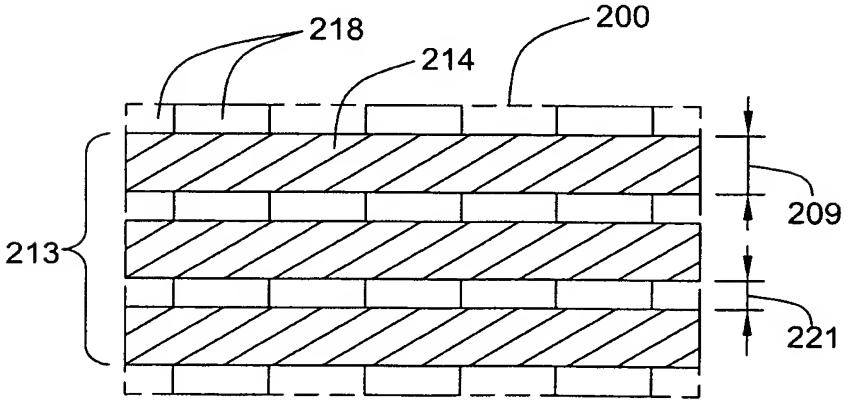

FIG. 2L

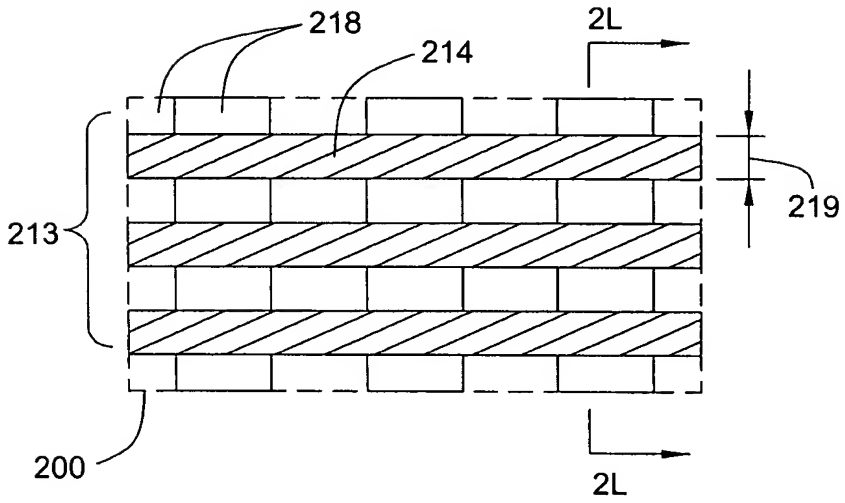

FIG. 2M

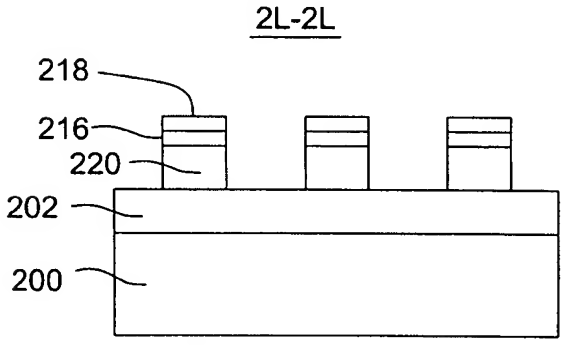

FIG. 2N

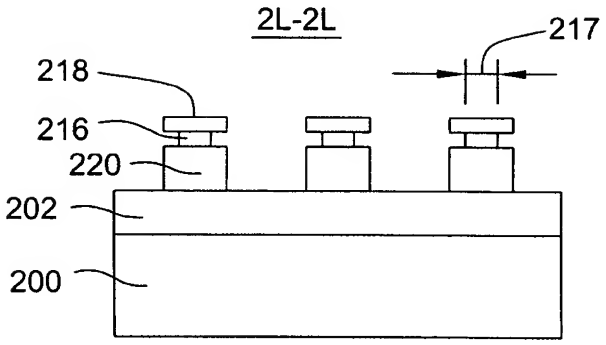

FIG. 2O

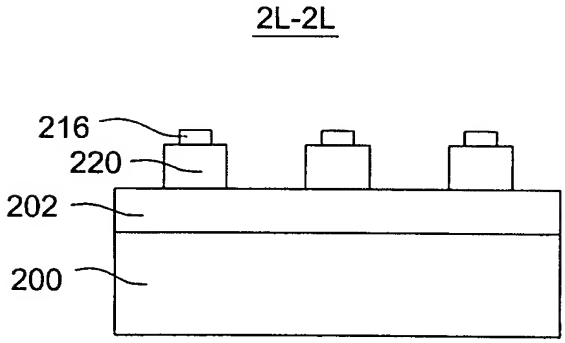

FIG. 2P

2L-2L

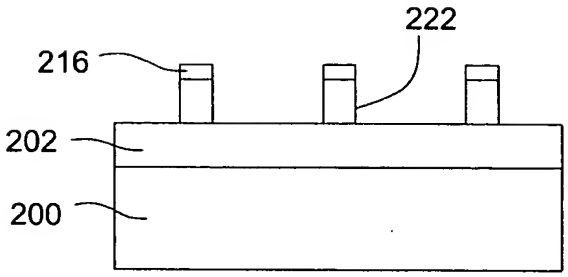

FIG. 2Q

2L-2L

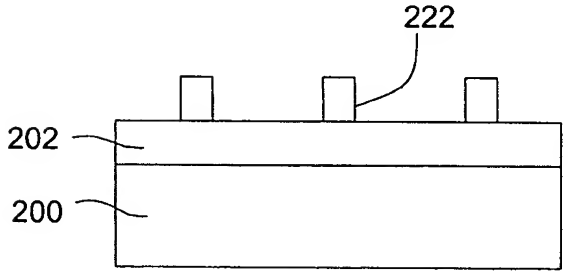

FIG. 2R

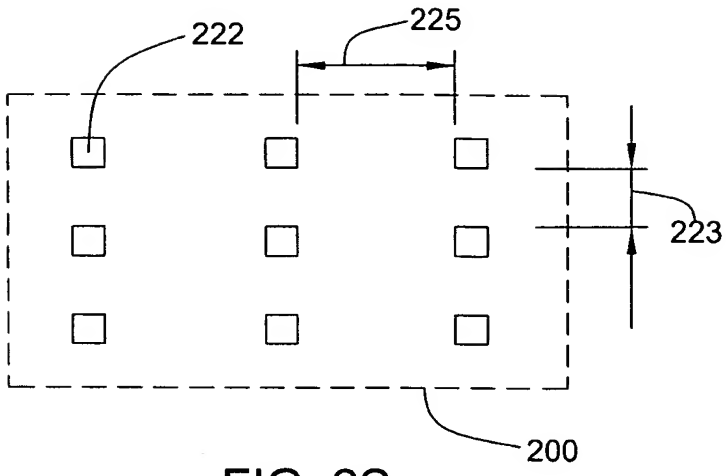

FIG. 2S

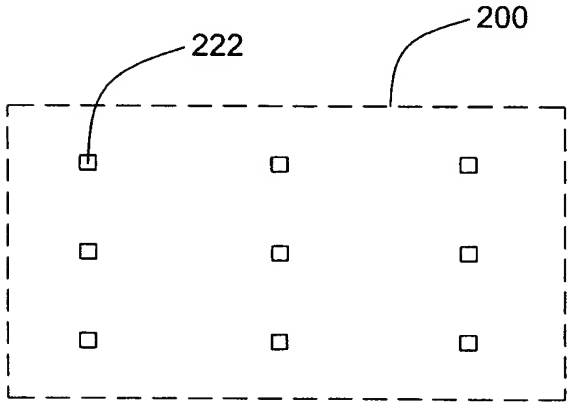

FIG. 2T

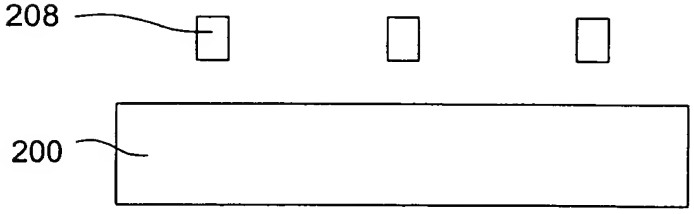

FIG. 2U

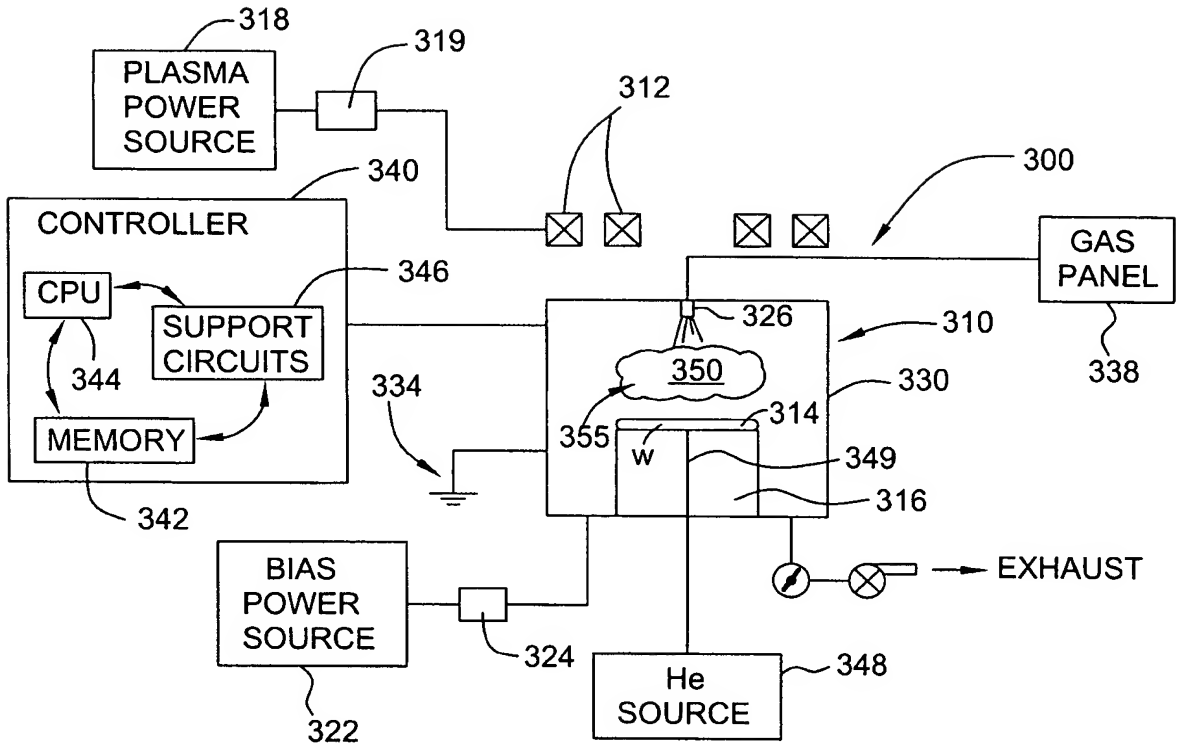
318
PLASMA POWER SOURCE
319
312
300
340
CONTROLLER
346
CPU
SUPPORT CIRCUITS
344
MEMORY
342
334
326
310
350
330
314
355
W
349
316
GAS PANEL
338
EXHAUST
BIAS POWER SOURCE
322
324
He SOURCE
348

FIG. 3